

## ABSTRACT

### IMMUNOCAPTURE-BASED MEASUREMENTS OF MAMMALIAN PYRUVATE DEHYDROGENASE COMPLEX

The present invention is based on the discovery that an antibody specific for PDH complex can be used to immunoprecipitate PDH complex from the patient sample in an active state. Therefore the anti-PDH complex specific antibody can be used to determine the amount of and/or active state of PDH in a patient sample. The invention immunoassay methods for determining the amount and/or active state of PDH complex present in a patient sample are useful for screening to identify individuals having symptoms indicating malfunction of PDH complex. For example, the invention methods can be used to screen individuals for symptoms of onset of the diabetic state, such as insulinitis, and for diagnosing late onset diseases, such as diabetes, Alzheimer's and the like.